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EXAMINER	
SELBY, GEVELL V	
ART UNIT	**PAPER NUMBER**
2622	

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/266,253	UJIIE ET AL.	
	Examiner	Art Unit	
	Gevell Selby	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 March 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11,13-29,31-35,50,51 and 54-177* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11,13-29,31-35,50,51 and 54-177* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 3/22/06 have been fully considered but they are not persuasive. The applicants submit that the prior art does not disclose the following limitations of the claimed invention:

"a playback state in which said apparatus is not controlled by the external controller unit" as claimed in claims 1-11, 13-29, 31-35, 50, 51, and 54-159. The examiner respectfully disagrees.

Examiner's Response:

Re claims 1-11, 13-29, 31-35, 50, 51, and 54-159) The Saito reference discloses in another embodiment a driving device (see figure 11, element 236) that moves an image sensing optical system (see figure 11, element 231 and column 13, lines 33-39). Saito also discloses a liquid crystal display (232) and LCD driving circuit (233) which can display in a playback mode the real-time image and can also display the still images which are recorded in the image to confirm a photographing (see column 13, lines 14-32). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify the first embodiment of the Saito reference in view of the fifth embodiment to have a driving device and a playback mode in which said apparatus is not controlled by the external controller unit, in order to focus the image and view the image during photographing, so that the user instantly verify the image was captured correctly, making the photographing process easier while saving the user time not having to connect to the host computer.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-3, 15-22, 32-35, 50-51, 54-57, 62, 65, 67-70, 72, 81, 83-87, 89, 94, 97, 100-102, 104, 113, 115-120, 126, 128, 130-133, 143, 145-171, and 174-177 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al, U.S. Patent 6,256,063, in view of Kobayashi et al, U.S. Patent 5, 136,320.

Regarding claims 1, 54, 69, 86, 101, 118 and 132, Saito et al teaches an image sensing apparatus (camera 10) that judges at least whether said image sensing apparatus is connected to an external device (host computer 30) through a memory card such that the operations of the image sensing apparatus, including image capture, are controlled by the external device (host computer 30), which reads on an external control state in which said apparatus is controlled by an external controller unit (col. 9, line 47-col. 10, line 3). The determination device is inherently taught because the camera judges whether the camera is in normal mode or remote mode according to whether the flag is set of not (see column 9, lines 49-54). Saito also teaches that the image sensing apparatus can capture images when its shutter release button is pressed, which reads on an image sensing state in which said apparatus is not controlled by the external controller unit, individually (col. 9, lines 4-7). Saito therefore teaches that operations of the camera may be controlled individually or by an external device (see column 9, line 63 to column 10, line 3), which

reads on determination of operations of the image sensing apparatus in accordance with whether the image sensing apparatus is controlled by an external device. In another embodiment, Saito discloses a driving device (see figure 11, element 236) that moves an image sensing optical system (see figure 11, element 231 and column 13, lines 33-39). Saito also discloses a liquid crystal display (232) and LCD driving circuit (233) which can display in a playback mode the real-time image and can also display the still images which are recorded in the image to confirm a photographing (see column 13, lines 14-32). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify the first embodiment of the Saito reference in view of the fifth embodiment to have a driving device and a playback mode in which said apparatus is not controlled by the external controller unit, in order to focus the image and view the image during photographing, so that the user instantly verify the image was captured correctly, making the photographing process easier while saving the user time not having to connect to the host computer. The system control determining that the camera is in normal mode and displaying the images on the LCD reads on the determining device judging whether said apparatus is in a playback state in which said apparatus in not controlled by the external controller unit.

The Saito reference does not teach a driving device that moves an image sensing optical system to image sensing and non-image sensing regions.

Kobayashi teaches a driving device (zoom motor 10) that moves an image sensing optical system (zoom lens 11) to image sensing and non-image sensing regions (col. 9, lines 13-18, 43-49).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the driving device of Kobayashi into the image sensing apparatus that may be controlled individually or by an external device taught by Saito to make an image sensing apparatus that drives its optical system in accordance with the desires of its controller, whether the controller is an individual operator or an external unit. One of ordinary skill would have been motivated to make such a modification to provide greater flexibility in operating a camera.

Regarding claims 2, 55, 87, and 119, Saito in view of Kobayashi teach the apparatus of claims 1, 54, 86, 118, respectively. Saito teaches that when a camera is connected to the computer, which reads on the external control state, the computer sends controls the camera pertaining to image sensing (col. 9, line 47-col. 10, line 3). It would have been obvious to one of ordinary skill to move the optical system to the image sensing region when capturing images.

Regarding claim 3, 57, 89, and 120, Saito in view of Kobayashi teach the apparatus of claims 1, 54, 86, 118, respectively. Saito teaches that the host computer transmits shutter release commands to the camera (col. 9, line 47-col. 10, line 3), which reads on an external control state in which the external controller unit transmits an image sensing signal to the camera. It would have been obvious to one of ordinary skill to move the optical system to the image sensing region when capturing images.

Regarding claim 15, Saito in view of Kobayashi teach the apparatus of claims 1, respectively. Kobayashi et al teaches that the non-image sensing region includes a position where said optical system is stored (col. 9, lines 15-18).

Regarding claim 16, Saito in view of Kobayashi teach the apparatus of claim 1. Kobayashi et al. teaches that the non-image sensing region includes a predetermined position where the optical system is collapsed in a body of said image sensing apparatus (col. 9, lines 15-16, and Fig. 3)

Regarding claims 17, 68, 100, and 131, Saito in view of Kobayashi teach the apparatus of claims 1, 63, 86, 118, respectively. Saito teaches that a computer may control the operation of the camera, which reads on an external control state in which an external computer controls the camera (col. 9, line 63-col. 10, line 3).

Regarding claim 18, Saito in view of Kobayashi teach the apparatus of claim 1. Kobayashi et al teaches that said driving device includes a motor (zoom motor 10) (col. 9, lines 43-49).

Regarding claim 19, Saito et al teaches a camera that judges at least whether said camera is connected to an external device (host computer 30) through a memory card such that the operations of the image sensing apparatus, including image capture, are controlled by the external device (host computer 30), which reads on an external control state in which said apparatus is controlled by an external controller unit (col. 9, line 47-col. 10, line 3). The determination device is inherently taught because the camera judges whether the camera is in normal mode or remote mode according to whether the flag is set of not (see column 9, lines 49-54. Saito also teaches that the image sensing apparatus can capture images when its shutter release button is pressed, which reads on an image sensing state in which said apparatus is not controlled by the external controller unit, individually (col. 9, lines 4-7). Saito therefore teaches that operations of the camera may

be controlled individually or by an external device (see column 9, line 63 to column 10, line 3), which reads on determination of operations of the image sensing apparatus in accordance with whether the image sensing apparatus is controlled by an external device. In another embodiment, Saito discloses a driving device (see figure 11, element 236) that moves an image sensing optical system (see figure 11, element 231 and column 13, lines 33-39). Saito also discloses a liquid crystal display (232) and LCD driving circuit (233) which can display the real-time image and can also display the still images which are recorded in the image to confirm a photographing (see column 13, lines 14-32). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify the first embodiment of the Saito reference in view of the fifth embodiment to have a driving device and a playback mode in which said apparatus is not controlled by the external controller unit, in order to focus the image and view the image during photographing, so that the user instantly verify the image was captured correctly, making the photographing process easier while saving the user time not having to connect to the host computer. The system control determining that the camera is in normal mode and displaying the images on the LCD reads on the determining device judging whether said apparatus is in a playback state in which said apparatus in not controlled by the external controller unit.

The Saito reference does not teach a driving device that moves an image sensing optical system to image sensing and non-image sensing regions.

Kobayashi teaches a driving device (zoom motor 10) that moves a photographing optical system (zoom lens 11) to photographing and non-photographing regions (col. 9, lines 13-18, 43-49).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the driving device of Kobayashi into the image sensing apparatus that may be controlled individually or by an external device taught by Saito to make an image sensing apparatus that drives its optical system in accordance with the desires of its controller, whether the controller is an individual operator or an external unit. One of ordinary skill would have been motivated to make such a modification to provide greater flexibility in operating a camera.

Regarding claims 20, 70, 102, and 133, Saito et al teaches an image sensing apparatus (camera 10) that judges at least whether said image sensing apparatus is connected to an external device (host computer 30) through a memory card such that the operations of the image sensing apparatus, including image capture, are controlled by the external device (host computer 30), which reads on an external control state in which said apparatus is controlled by an external controller unit (col. 9, line 47-col. 10, line 3). The determination device is inherently taught because the camera judges whether the camera is in normal mode or remote mode according to whether the flag is set of not (see column 9, lines 49-54. Saito also teaches that the image sensing apparatus can capture images when its shutter release button is pressed, which reads on an image sensing state in which said apparatus is not controlled by the external controller unit, individually (col. 9, lines 4-7). Saito therefore teaches that operations of the camera may be controlled individually

or by an external device (see column 9, line 63 to column 10, line 3), which reads on determination of operations of the image sensing apparatus in accordance with whether the image sensing apparatus is controlled by an external device. In another embodiment, Saito discloses a driving device (see figure 11, element 236) that moves an image sensing optical system (see figure 11, element 231 and column 13, lines 33-39). Saito also discloses a liquid crystal display (232) and LCD driving circuit (233) which can display the real-time image and can also display the still images which are recorded in the image to confirm a photographing (see column 13, lines 14-32). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify the first embodiment of the Saito reference in view of the fifth embodiment to have a driving device and a playback mode in which said apparatus is not controlled by the external controller unit, in order to focus the image and view the image during photographing, so that the user instantly verify the image was captured correctly, making the photographing process easier while saving the user time not having to connect to the host computer. The system control determining that the camera is in normal mode and displaying the images on the LCD reads on the determining device judging whether said apparatus is in a playback state in which said apparatus in not controlled by the external controller unit.

The Saito reference does not teach a driving device that moves an image sensing optical system to image sensing and non-image sensing regions.

Kobayashi teaches a driving device (zoom motor 10) that moves an image sensing optical system (zoom lens 11) in extending and retracting directions (col. 9, lines 43-49).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the driving device of Kobayashi into the image sensing apparatus that may be controlled individually or by an external device taught by Saito to make an image sensing apparatus that drives its optical system in accordance with the desires of its controller, whether the controller is an individual operator or an external unit. One of ordinary skill would have been motivated to make such a modification to provide greater flexibility in operating a camera.

Regarding claims 14, 32, 67, 83, 99, 115, 130 and 145, Saito et al. in view of Kobayashi et al. teach the apparatus of claims 1, 20, 54, 70, 86, 102, 118 and 133, respectively. Saito teaches a signal processing device (signal processing circuit 223) that converts an optical image formed by the optical system into an electrical signal for photography and display (col. 13, lines 14-33).

Regarding claims 21, 71, 103, and 134, Saito in view of Kobayashi teach the apparatus of claims 20, 70, 102, 133, respectively. Saito teaches that when a camera is connected to a computer, which reads on the external control state, the computer controls the camera to effect image sensing (col. 9, line 47-col. 10, line 3). It would have been obvious to one of ordinary skill to extend the image sensing optical system out from the camera body when capturing images.

Regarding claims 22, 73, 105, and 135, Saito in view of Kobayashi teach the apparatus of claims 20, 70, 102, 133, respectively. Saito teaches that the camera receives shutter release commands from the host computer 12, which reads on an external state in which the external controller unit transmits an image sensing signal to the camera 10 (col.

9, line 47-col. 10, line 3). It would have been obvious to one of ordinary skill to extend image sensing optical system out from the camera body when capturing images.

Regarding claims 33, 84, 116, and 146, Saito in view of Kobayashi teach the apparatus of claims 20, 70, 102, 133, respectively. Saito teaches that a computer may control the camera, which reads on an external control state (col. 9, line 47-col. 10, line 3).

Regarding claim 34, Saito in view of Kobayashi teach the apparatus of claim 20. Kobayashi et al teaches that said driving device includes a motor (zoom motor 10) (col. 9, lines 43-49).

Regarding claims 35, 85, 117, and 147, Saito et al. teaches a camera that judges at least whether said camera is in a first state of being functionally connected to an external device (host computer 30) through a memory card such that the operations of the image sensing apparatus, including image capture, are controlled by the external device (host computer 30), which reads on an external control (first) state in which said apparatus is controlled by an external controller unit (col. 9, line 47-col. 10, line 3). The determination device is inherently taught because the camera judges whether the camera is in normal mode or remote mode according to whether the flag is set of not (see column 9, lines 49-54. Saito also teaches that the image sensing apparatus can capture images when its shutter release button is pressed, which reads on an image sensing (second) state in which said apparatus is not controlled by the external controller unit, individually (col. 9, lines 4-7). Saito therefore teaches that operations of the camera may be controlled individually or by an external device (see column 9, line 63 to column 10, line 3), which

reads on determination of operations of the image sensing apparatus in accordance with whether the image sensing apparatus is controlled by an external device. In another embodiment, Saito discloses a driving device (see figure 11, element 236) that moves an image sensing optical system (see figure 11, element 231 and column 13, lines 33-39). Saito also discloses a liquid crystal display (232) and LCD driving circuit (233) which can display in a playback (third) state the real-time image and can also display the still images which are recorded in the image to confirm a photographing (see column 13, lines 14-32). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify the first embodiment of the Saito reference in view of the fifth embodiment to have a driving device and a playback mode in which said apparatus is not controlled by the external controller unit, in order to focus the image and view the image during photographing, so that the user instantly verify the image was captured correctly, making the photographing process easier while saving the user time not having to connect to the host computer. The system control determining that the camera is in normal mode and displaying the images on the LCD reads on the determining device judging whether said apparatus is in a playback state in which said apparatus in not controlled by the external controller unit.

The Saito reference does not teach a driving device that moves an image sensing optical system to image sensing and non-image sensing regions.

Kobayashi teaches a driving device (zoom motor 10) that moves a photographing optical system (zoom lens 11) in extending and retracting directions (col. 9, lines 43-52).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the driving device of Kobayashi into the camera that may be controlled individually or by an external device taught by Saito to make a camera that drives its photographing optical system in accordance with the desires of its controller, whether the controller is an individual operator or an external unit. One of ordinary skill would have been motivated to make such a modification to provide greater flexibility in operating a camera.

Regarding claims 50, 51, and 148-159, because the apparatus of claims 1, 20, 54, 69, 70, 85, 86, 101,133, 117,118, 132, 102 and 133, respectively, are taught, the control method corresponding to the apparatus is also taught.

Regarding claims 62, 94, and 126, Saito in view of Kobayashi teaches the apparatus of claims 54, 86, and 118, respectively. See above. Saito in view of Kobayashi discloses the image sensing optical system is driven to the non-image sensing region in response to the completion of an image sensing operation in the first state (see Kobayashi: column 16, lines 37-50: When the camera goes into a non-use condition for the lens, the zoom lens is retracted into the camera body).

Regarding claims 65, 81, 97, 113, 128, and 143, Saito in view of Kobayashi teach the apparatus according to claims 54, 70, 86, 102, 127, and 133, respectively. Kobayashi teaches that the image sensing optical system is positioned in a non-image sensing region during a non-image sensing state (col. 16, lines 38-50). Saito teaches a third state or playback mode with a non sensing state when reviewing saved images (see column 13, lines 14-32).

Regarding claims 72 and 104, Saito in view of Kobayashi teaches the apparatus of claims 70 and 102, respectively. See above. Saito in view of Kobayashi discloses the image sensing optical system is driven to move in, in response to the completion of an image sensing operation in the first state (see Kobayashi: column 16, lines 37-50: When the camera goes into a non-use condition for the lens, the zoom lens is retracted into the camera body).

Regarding claims 161, 165, and 169, Saito in view of Kobayashi teaches the apparatus of claims 54, 86, and 118 respectively. It is implied by the Kobayashi reference that when the determination device judges that said image sensing apparatus is in the third state or playback mode, said determination device positions the image sensing position system in the non image sensing region inside the camera body when image capture is completed and viewing saved images (col. 9, lines 43-52), in order to protect the lens when not in use.

Regarding claims 163, 167, 174 and 176, Saito in view of Kobayashi teaches the apparatus of claims 1 and 20, respectively. The Saito reference discloses that when the determination device judges that said image sensing apparatus is in the third state or playback mode, said determination device moves out the image sensing optical system in the image sensing region when previewing images for capture in real time (see column 13, lines 26-32).

Regarding claims 160, 162, 164, 166, 168, 170, 171, 175, and 177, Saito in view of Kobayashi teaches the apparatus of claims 65, 161, 91, 143, 165, 128, 169, 174 and 176, respectively. It is implied by the Saito reference that when the determination device

judges said image sensing apparatus is in the second state or image sensing mode, said determination device causes said driving device to move the image sensing optical system to the image sensing region, in order move the lens to the correct zoom location to be able to more accurately capture the desired image (see column 13, lines 34-44).

4. Claims 4-6, 10, 11, 23-25, 27-29, 58-60, 63, 64, 74-76, 78-80, 90-92, 95, 96, 106-108, 110-112, 121-123, 127, 136-138, 140-142, and 172-173 are rejected under 35 U.S.C. 1O3(a) as being unpatentable over Saito et al, U.S. Patent 6,256,063, in view of Kobayashi et al, U.S. Patent 5,136,320, and further in view of Takahashi, U.S. Patent 5,210,567.

Regarding claims 4, 58, 90, 121, Saito in view of Kobayashi teach the apparatus of claim 3. See above. Saito in view of Kobayashi do not teach the driving of said optical system to the non-image sensing region in response to a completion of an image sensing operation.

Takahashi teaches the retraction of a lens to a rest position a predetermined time period after an image capture (col. 2, lines 40-52), which reads on the driving of an optical system to a non-image sensing region in response to a completion of an image sensing operation.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the apparatus of Saito in view of Kobayashi with the practice of positioning the optical system in the non-image sensing region following the completion of an image capture taught by Takahashi to make an apparatus that retracts the lens once image capture has been completed. One of ordinary skill would have been motivated to make such a modification to protect the lens when not in use.

Regarding claims 5, 10, 59, 63, 91, 95, and 122, Saito in view of Kobayashi teach the apparatus of claim 3. See above. Saito in view of Kobayashi do not teach a timer for causing said driving device to drive said image sensing optical system to the non-image sensing region a predetermined time period after a completion of an image sensing operation.

Takahashi teaches the retraction of a lens to a rest position a predetermined time period after an image capture (col. 2, lines 40-52). The timer is inherently taught.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the apparatus of Saito in view of Kobayashi with the technique of Takahashi to make an image sensing apparatus with a timer that retracts the lens to a non-image sensing position once a predetermined time period following an image capture has elapsed, whether the apparatus is in the external control state or not. One of ordinary skill would have been motivated to make such a modification to protect the lens when not in use.

Regarding claims 6, 11, 60, 64, 92, 96, 123, and 127, Saito in view of Kobayashi teach the apparatus of claims 5, 10, 59, 63, 91, 95, 122, 118, respectively. Takahashi teaches the retraction of lens to a rest position after the elapse of a predetermined time period following the last image capture (col. 2, lines 40- 52). It would have been obvious to one of ordinary skill that if another image were captured before the predetermined time period elapses, the timer resets in accordance with the most recent image captured, and the lens would remain in the extended position.

Regarding claims 23, 74, 106, 136, Saito in view of Kobayashi teach the apparatus of claims 22, 73, 105, and 135, respectively. See above. Saito in view of Kobayashi do not teach the retraction of optical system in response to a completion of an image sensing operation.

Takahashi does teach the retraction of a camera lens a predetermined time period after an image capture (col. 2, lines 40-52), which reads on the retraction of the lens in response to a completion of an image sensing operation.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the apparatus of Saito in view of Kobayashi with the practice of retracting the optical system following the completion of an image capture taught by Takahashi to make an apparatus that retracts the lens after image capture has been completed. One of ordinary skill would have been motivated to make such a modification to protect the lens when not in use.

Regarding claims 24, 75, 107, and 137, Saito in view of Kobayashi teach the apparatus of claim 22, 73, 105, and 135. See above. Saito in view of Kobayashi do not teach a timer for causing the retraction of said optical system a predetermined time period after an image capture.

Takahashi teaches the retraction of a camera lens a predetermined time period after an image capture (col. 5, lines 23-28). The timer is inherently taught.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the apparatus of Saito in view of Kobayashi with the technique of Takahashi to make an image sensing apparatus that retracts the lens

after a predetermined time period following an image capture has elapsed. One of ordinary skill would have been motivated to make such a modification to protect the lens when not in use.

Regarding claims 25, 29, 76, 80, 108, 112, 138 and 142, Saito in view of Kobayashi teach the apparatus of claims 24, 75, 107, and 137, respectively. Takahashi teaches the retraction of lens to a rest position after the elapse of a predetermined time period following the last image capture (col. 5, lines 23-28). It would have been obvious to one of ordinary skill that if another image were captured before the predetermined time period elapses, the timer resets in accordance with the most recent image captured, and the lens would remain in the extended position.

Regarding claims 27, 78,110, and 140, Saito in view of Kobayashi teach the apparatus of claims 20, 70, 102, and 133, respectively. See above. Saito in view of Kobayashi do not teach the retracting of said optical system in response to a completion of an image sensing operation.

Takahashi does teach the retraction of a camera lens a predetermined time period after an image capture (abstract; col. 5, lines 23-28), which reads the retraction of an optical system in response to a completion of an image sensing operation.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the apparatus of Saito in view of Kobayashi with the practice of retracting the optical system following the completion of an image capture taught by Takahashi to make an apparatus that retracts the lens after image capture has been completed, whether the camera is in an external control state or not. One

of ordinary skill would have been motivated to make such a modification to protect the lens when not in use.

Regarding claims 28, 79, 111, and 141, Saito in view of Kobayashi teach the apparatus of claims 22, 73, 105, and 135, respectively. See above. Saito in view of Kobayashi do not teach a timer for causing the optical system to be retracted a predetermined time period after a completion of an image sensing operation when the apparatus is in the external control state.

Takahashi teaches the retraction of a camera lens a predetermined time period after an image capture (col. 5, lines 23-28). The timer is inherently taught.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the apparatus of Saito in view of Kobayashi with the technique of Takahashi to make an image sensing apparatus with a timer that retracts the lens once a predetermined time period following an image capture has elapsed. One of ordinary skill would have been motivated to make such a modification to protect the lens when not in use.

Regarding claim 172, Saito in view of Kobayashi teaches the apparatus of claim 1. The combination of the Saito and Kobayashi references does not disclose that the determination device positions the optical system in the non sensing region, in a case where said determination device judges that said apparatus is in the playback state.

Takahashi teaches the retraction of a lens to a rest position a predetermined time period after an image capture (col. 5, lines 23-28).

It would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify Saito in view of Kobayashi and further in view of Takahashi to have the determination device positions the optical system in the non sensing region, in a case where said determination device judges that said apparatus is in the playback state once a predetermined time period following an image capture has elapsed. One of ordinary skill would have been motivated to make such a modification to protect the lens when not in use.

Regarding claim 173, Saito in view of Kobayashi and further in view of Takahashi teaches the apparatus of claim 172 It is implied by the Saito reference that when the determination device judges said image sensing apparatus is in the second state or image sensing mode, said determination device causes said driving device to move the image sensing optical system to the image sensing region, in order move the lens to the correct zoom location to be able to more accurately capture the desired image (see column 13, lines 34-44).

5. Claims 7-8, 13, 26, 30-31, 56, 61, 66, 77, 82, 88, 93, 98, 109, 114, 125, 124, 129, 139, and 144 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al, U.S. Patent 6,256,063, in view of Kobayashi et al, U.S. Patent 5,136,320, and further in view of Hashimoto et al, U.S. Patent 6,344,875.

Regarding claims 7,8, 56, 61, 88, 93, 124, and 125, Saito in view of Kobayashi teach the apparatus according to claims 1, 54, 86, and 118, respectively. See above. Kobayashi teaches that the image sensing optical system is positioned in a non-image sensing region during a non-image sensing state, which reads on the prevention of the

optical system from being driven to the image sensing state (col. 16, lines 38-5). Saito teaches a digital camera with a memory for storing digital images (col. 9, lines 13-17). Saito in view of Kobayashi do not teach that the image sensing optical system is in the non-image sensing region when the apparatus is in the external control state.

Hashimoto teaches that when a computer controls the camera, it is limited to transmitting and receiving images, which reads on non-image sensing states (col. 10, lines 30-33).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the practice of positioning optical systems in the non-image sensing position when the apparatus is in a non-image sensing mode taught by Saito in view of Kobayashi with the use of external control states taught by Hashimoto to make an apparatus that positions the optical system in the non-image sensing region when the camera is transmitting or receiving images in the external control state. One of ordinary skill would have been motivated to make such a modification to safeguard the lens when it is not in use.

Regarding claims 13, 31, 66, 82, 98, 114, 129, and 144, Saito et al. in view of Kobayashi et al. teach the apparatus according to claims 1, 20, 54, 70, 86, 102, 118, 133, respectively. Hashimoto teaches an operation device that selectively sets the apparatus into the image sensing (first) state, the playback (second) state or the external control (third) states, wherein said operation device is provided on an exterior of said image sensing device, which reads on provided at a position where a user can operate said operation device (Fig. 13B).

It would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify Saito et al. in view of Kobayashi et al., and further in view of Hashimoto et al. to have an operation device that selectively sets the apparatus into the image sensing (first) state, the playback (second) state or the external control (third) states, wherein said operation device is provided on an exterior of said image sensing device, which reads on provided at a position where a user can operate said operation device, in order for the user to easily switch the modes of the camera.

Regarding claims 26, 77, 109, and 139, Saito in view of Kobayashi teach the apparatus according to claims 20, 70, 102, and 133, respectively. See above. Kobayashi teaches that the image sensing optical system is positioned in a non-image sensing region during a non-image sensing state, which reads on the prevention of the optical system being driven in the extending direction (col. 16, lines 38-50). Saito in view of Kobayashi do not teach that the image sensing optical system is in the non-image sensing region when the apparatus is in the external control state.

Hashimoto teaches that when a computer controls the camera, it is limited to transmitting and receiving images, which reads on non-image sensing states (col. 10, lines 30-33).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the practice of positioning optical systems in the non-image sensing position when the apparatus is in a non-image sensing mode taught by Saito in view of Kobayashi with the use of non-image external control states taught by Hashimoto to make an apparatus that prevents the optical system from being driven in the

extended direction when the camera is transmitting or receiving images in the non-image sensing external control state. One of ordinary skill would have been motivated to make such a modification to safeguard the lens when it is not in use.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al, U.S. Patent 6,256,063, in view of Kobayashi et al, U.S. Patent 5,136,320, and further in view of Prentice et al, U.S. Pub. No. 2003/0030729.

Regarding claim 9, Saito in view of Kobayashi teach the apparatus of claim 1. See above. Saito in view of Kobayashi do not teach that in the external control state, the image sensing optical system is driven to the image sensing region in response to the completion of an image sensing operation.

Prentice et al teaches that the host computer 12 instructs the camera 10 when to take motion pictures [0024], and it would have been obvious to one of ordinary skill to drive the optical system to and within the image sensing region in response to a completion of an image sensing apparatus to effect focus for the next motion image to be captured.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the practice of enabling a computer to transmits motion image capturing commands to a camera taught by Prentice into the apparatus of Saito in view of Kobayashi to make an image sensing apparatus that can be controlled by an external device to capture motion images. One of ordinary skill would have been motivated to make such a modification to enable a computer to control various imaging parameters in a camera.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gevell Selby whose telephone number is 571-272-7369. The examiner can normally be reached on 8:00 A.M. - 5:30 PM (every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on 571-272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

gvs

TUAN HO
PRIMARY EXAMINER